

### REMARKS

Claims 1–33 were pending in the present application. Claims 1–33 stand rejected. Applicant amends Claims 1, 13, 19, 23, 25–28, 29, 31 and 32, and adds new Claim 34. No new matter is introduced by the amendments. Support for the amendments is found, at least, in Figures 7 and 9 and the description therefor, in addition to p. 26 ll. 18–30, p. 27 ll. 1–2, and p. 47 ll. 10–26 of the specification as filed. No claims have been cancelled. In light of the amendments and the reasons set forth below, Applicant believes that the present application is in a condition for allowance, for which prompt and favorable action is respectfully requested.

### Discussion of Rejections Under 35 U.S.C. § 101

Claims 19–23 stand rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention. Specifically, method Claims 19–23 were rejected for lacking an apparatus to perform the recited method steps.

Judicial interpretations of 35 U.S.C. § 101 require a statutory process to (1) be tied to another statutory category, or (2) transform underlying subject matter to a different state or thing. *See Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787–88 (1876); *In re Bilski*, 545 F.3d 943, 88 U.S.P.Q.2d 1385 (Fed. Cir. 2008). The Office Action rejected Claims 19–23 on the basis that the claimed “processes are not tied to another statutory class, nor is there a transformation of underlying subject matter” *Office Action* at 4.

In response to the rejections of Claims 19–23, Applicant has amended the claims. In *In re Bilski*, the Federal Circuit determined that “[a] claimed process is surely patent-eligible under § 101 if . . . it is tied to a particular machine or apparatus.” 88 U.S.P.Q.2d at 1391. The Court rejected restricting patent-eligibility to processes involving physical elements or steps. *Id.* at 1396. The Court held that the proper question was whether the process satisfied the “machine-or-transformation test” regardless of whether or not it involved “physical steps.” *Id.*

Independent Claims 19 and 23 have been amended to recite a method wherein the method is performed by one or more computing devices. Accordingly, Claims 19 and 23, which claim an apparatus, as well as their dependent Claims 20–22, are directed to statutory subject matter under

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35 U.S.C. § 101. Therefore, Applicant respectfully requests the rejection of these claims be withdrawn.

**Discussion of Objections Under 37 C.F.R. § 1.75(c)**

Claims 25 and 26 stand objected to under 37 C.F.R. § 1.75(c) as being of improper dependent form. Specifically, the Office Action alleged that Claims 25 and 25 were drawn to the method steps in Claim 24 but “fail[] to include all the limitations of parent claim 24.” *Office Action* at 5. Applicant has amended Claims 25 and 26 to direct their respective features to the computer readable storage medium having stored thereon instructions that when executed by a computer processor perform the method of Claim 24.

Thus, Claims 25 and 26 are now in proper form and Applicant respectfully requests the objection to these claims be withdrawn. Applicant has similarly amended Claim 27.

**Discussion of Rejections Under 35 U.S.C. § 102(e)**

Claims 1–3, 5, 9–10, and 28–29 have been rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2003/0039948 by Donahue. Applicant respectfully disagrees.

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

**Claim 1**

The Examiner stated that “Donahue discloses the recommendation data including an optional course of action . . . [and] a corrective course of action.” *Office Action* at 8. The Office Action cites to [0062] in support of this assertion. Claim 1 recites in part:

a feedback generation module configured to receive the analysis data from the performance analysis module and generate the recommendation data based on the analysis data, wherein the

computer network interface module receives the recommendation data from the feedback generation module and transmits the recommendation data onto the computer network to a school official, wherein the recommendation data comprises a plurality of courses of action.

Applicant respectfully submits that Donahue merely discloses a list of elements rather than a plurality of courses of action. For example, Donahue states, "The system may also present the user with available lessons or lesson plans." *Donahue* at [0061]. "The tutorial method 10 then compiles a first subset of lesson elements." *Id.* The tutorial method does not compile optional subsets of lesson elements or subsets of lesson elements identified as corrective; Donahue only teaches compiling "a first subset of lesson elements." *Id.* The teacher can then "review the unique subset of elements assembled." *Id.* at [0062] (emphasis added). "The teacher may then modify the lesson plan for the user . . . ." *Id.* (emphasis added). Applicant respectfully submits the mere listing of "a subset of lesson elements" does not constitute providing a plurality of courses of action. Nor does the teacher's ability to "modify the lesson plan" constitute providing a plurality of courses of action as Applicant's claim.

For all of the reasons discussed above, Applicant respectfully submits that the Donahue reference does not teach or suggest each and every element of amended Claim 1. Furthermore, the applied prior art of record does not cure this deficiency in the Donahue reference. Accordingly, Applicant respectfully requests withdrawal of this rejection.

#### **Discussion of Rejections Under 35 U.S.C. § 103(a)**

Claims 4, 11, and 12 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Donahue in view of U.S. Patent No. 6,526,258 to Bejar et al. Claim 6 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Donahue. Claims 7, 8, 13-18, and 30-33 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Donahue in view of a Today@UCI press release entitled "Piano Computing and Training . . ." (hereinafter UCI). Claims 19, 20, 24, and 25 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Donahue in view of U.S. Patent No. 6,514,084 to Thomas. Claims 21, 22, 26, and 27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Donahue in view of Thomas and in further view of U.S. Patent Publication No. 2004/0033475 by Mizuma et al. Claim 23 stands rejected under 35 U.S.C. § 103(a) as

unpatentable over Donahue in view of Thomas, UCI, and U.S. Patent Application No. 2003/0059759 by Calhoun et al.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *See* M.P.E.P. § 2143.03; *see also In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (CCPA 1974).

### **Claim 13**

Applicant has amended Claim 13 to recite, in part, a computerized system wherein the recommendations comprise a plurality of courses of action. For at least the reasons set forth above in relation to Claim 1, Applicant respectfully submits that Donahue fails to teach this feature.

### **Claims 19 and 24**

Independent Claims 19 and 24 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Donahue in view of Thomas. Applicant respectfully disagrees because the cited references fail to teach or suggest all the claimed features.

The Examiner stated that Donahue “discloses . . . determining whether a student is authorized to progress to a next task of a curriculum or whether the student needs assistance from an instructor based on the comparison (Paragraphs 61–62).” *Office Action* at 12. Claim 19 recites, in part, “determining whether the student is authorized to progress to a next task of a curriculum or whether the student needs assistance from an instructor based on the comparison.” Applicant respectfully disagrees that Donahue, alone or in conjunction with Thomas, teaches the claimed feature.

One of Donahue’s “objectives” is to “reduce the extensive resources required for individualized teacher/student interaction.” *Donahue* at [0059]. Donahue discloses that “[i]f the user’s unacceptable assessment responses have surpassed the predetermined unacceptable rejection limit, then the user is prompted or presented with information regarding the user’s deficiency and the user’s need to practice or take further remedial lessons at block 54.” *Id.* at [0058]. To the extent Donahue discloses assistance from an instructor, the assistance is limited to presenting the teacher “with a particular user or student profile”, giving the teacher “an opportunity to review the unique

subset of lesson elements assembled for a particular user or student, or cohort”, and allowing the teacher to “modify the lesson plan for the user.” *Id.* at [0060]–[0062].

Applicant respectfully submits that the assistance Donahue allegedly discloses is not the same as “determining whether a student needs assistance from an instructor.” To achieve Donahue’s objective of reducing “individualized teacher/student interactions”, Donahue would necessarily disfavor Applicant’s claimed assistance. As one example, Applicant discloses “assistance or additional instruction can be provided to the student on the spot.” *Specification as filed* at p.2, ll. 19-20. Applicant respectfully submits that Thomas does not teach or suggest the feature.

Therefore, Applicant respectfully submits the cited references fail to teach or suggest each feature in Claim 19 and 24, and as such, respectfully requests withdrawal of these rejections.

### **Claim 23**

Independent Claim 23 was rejected under 35 U.S.C. § 103(a) as unpatentable over Donahue in view of Thomas, UCI, and Calhoun et al. Applicant respectfully disagrees as the cited references fail to teach or suggest all the claimed features.

For example, the Examiner stated that Donahue [0084]–[0086] and [0097]–[0098] disclose “determining adjustments and redesigning the system and lesson elements based on a comparison of the history of results from the assessment components.” *Office Action* at 14.

Applicant’s Claim 23 recites, in part, “determining adjustments to the game or the diagnostic quiz based on the comparison of the game score to the diagnostic quiz score.” Donahue merely discloses adapting the “sharable courseware objects (lesson elements) . . . packaged with sufficient information to be reusable and accessible.” *Donahue* at [0084]. Donahue further discloses identifying “successful methodologies of teaching components . . . in assembling the course component.” *Id.* at [0083] (emphasis added). Donahue fails to disclose modifying the individual “lesson elements” but rather only discloses modifying the “curricular hierarchy” of lesson elements presented. *Id.* at [0085].

As a second example, the Examiner stated that Calhoun [0072]–[0076] discloses “initial testing may be performed to gauge an individual’s abilities, followed by comparing the individual’s progress to determine a correlation.” *Office Action* at 14.

Applicant's Claim 23 recites, in part, three different tests used to develop a computerized game: (1) "a basic spatial temporal test", (2) testing of "an initially designed game", and (3) "a diagnostic quiz". Calhoun discloses "administering a set of initial tests" that are "appropriate tests for the human subject." *Calhoun* at [0072]. The "initial testing is performed at the same time and in the same location as subsequent testing" to "hopefully minimize random variation." *Id.* The testing in Calhoun is performed to "measure the efficacy and/or side effects of the therapy." *Id.* at [0074]. Furthermore, Calhoun discloses "testing . . . with administration of a therapy without testing for initial status" and "testing . . . without administration of a therapy and without including initial testing." *Id.* at [0078]. Once the "appropriate tests" have been selected, the variation disclosed in Calhoun is directed to "the number of times that testing may be administered." *Id.* at [0077].

Applicant respectfully submits that Calhoun simply discloses one test, or a single set of tests, which is repeatedly administered before and/or during therapy to determine the efficacy of the medical therapy. Applicant claims, in part, using "a basic spatial temporal test", testing of "an initially designed game", and "a diagnostic quiz", administered at different times to determine the efficacy of both the "diagnostic quiz" and "the designed game". In contrast, Calhoun would fail to distinguish whether the selected "appropriate tests" were deficient or if the therapy was deficient.

Therefore, Applicant respectfully submits the cited references fail to teach or suggest each feature in Claim 23, and as such, respectfully requests withdrawal of this rejection.

#### **Dependent Claims**

Although Applicant has not addressed all the issues or the dependent claims, Applicant does not necessarily agree with the characterization and assessments of the dependent claims made by the Examiner, and Applicant believes that each claim is patentable on its own merits. The dependent claims are dependent either directly or indirectly on one of the above-discussed independent claims. Applicant respectfully submits that pursuant to 35 U.S.C. § 112, ¶4, the dependent claims incorporate by reference all the limitations of the claim to which they refer and include their own patentable features, and are therefore in condition for allowance. Therefore,

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Applicant respectfully requests the withdrawal of all claim rejections and prompt allowance of the claims.

**No Disclaimers or Disavowals**

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

**CONCLUSION**


In view of the foregoing remarks, Applicant respectfully submits that the claims of the above-identified application are in condition for allowance. However, if the Examiner finds any impediment to allowing all claims that can be resolved by telephone, the Examiner is respectfully requested to call the undersigned.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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